

Currently Pending Claims

1. (previously amended) Apparatus for performing location-dependent data processing operations comprising, in combination,

a relational database management system for creating and updating data structures comprising a first set of one or more relational tables describing objects, said data structures including means for storing data specifying the geographic location of at least selected ones of said objects,

means for storing reference data in a second set of one or more relational tables describing a plurality of system defined regions, said reference data including the specification of the geographic location of each given one of said system defined regions and a human interpretable description of each given one of said regions,

a user-manipulated control, comprising:

means for visually displaying to a user said human interpretable description for said system defined regions,

means for accepting from said user an identification of a plurality of system defined regions, and

means for generating the specification of a new user defined region consisting of the combination of said plurality of system defined regions, and

means for storing reference data describing said new user defined region in said second set of tables, and

means responsive to said control for transferring selected items of said reference data to said means for storing geographic location data associated with one of said objects.

2. (previously amended) Apparatus as set forth in claim 1 wherein said user-manipulated control further comprises means for identifying a selected one of said regions described in said second set of tables and for transferring data specifying the geographic location of said selected one of said regions to said first set of tables to specify the geographic location of a specified one of said objects.

3. (original) Apparatus as set forth in claim 1 wherein said means for storing reference data includes means for storing said reference data in a hierarchy of regions.

4. (original) Apparatus as set forth in claim 3 wherein said hierarchy of regions consists of a parent-child hierarchy of levels holding regions of decreasing size characterized by each child region having a geographical extent the lies within the geographical extent of its parent region.

5. (original) Apparatus as set forth in claim 3 wherein said reference data defines the boundaries of each of said regions and wherein any first region having defined boundaries within the boundaries of a region is nested within said second region within said hierarchy.

6. (canceled)

7. (canceled)

8. (canceled)

9. (canceled)

10. (canceled)

11. (previously amended) A method for performing location-dependent data processing operations comprising, in combination, the steps of

creating and updating data structures describing objects in a first set of tables in a relational database management system, said data structures including data specifying the geographic location of at least selected ones of said objects,

storing reference data describing a plurality of system defined regions in a second set of tables in said relational database system, said reference data including the specification of the geographic location of each given one of said system defined regions and a human interpretable

description of each given one of said system defined regions,
employing a user-manipulated control for performing the substeps of:
visually displaying to a user said human interpretable description for said system defined regions,
accepting from said user an identification of a plurality of system defined regions,
and
generating the specification of a new user defined region consisting of the combination of said plurality of system defined regions, and
storing reference data describing said new user defined region in said second set of tables, and
transferring said reference data describing said new user defined region to said data structures to associate said new user defined region with one of said objects.

12. (previously amended) The method set forth in claim 11 wherein said data structures describing objects are relational tables describing one or more services each having a geographic location serving one of said system defined regions or one of said user defined regions.

13. (original) The method set forth in claim 11 wherein said step of storing reference data includes the step of storing said reference data in a hierarchy of regions.

14. (original) The method set forth in claim 13 wherein said hierarchy of regions consists of a parent-child hierarchy of levels holding regions of decreasing size characterized by each child region having a geographical extent the lies within the geographical extent of its parent region.

15. (original) The method set forth in claim 13 wherein said reference data defines the boundaries of each of said regions and wherein any first region having defined boundaries within the boundaries of a region is nested within said second region within said hierarchy.

16. (canceled)

17. (canceled)

18. (canceled)

19. (canceled)

20. (canceled)